Gitter: https://gitter.im/scikit-learn/

Crash-Course in Contributing to Open Source Projects

(with some specific instructions to sklearn)

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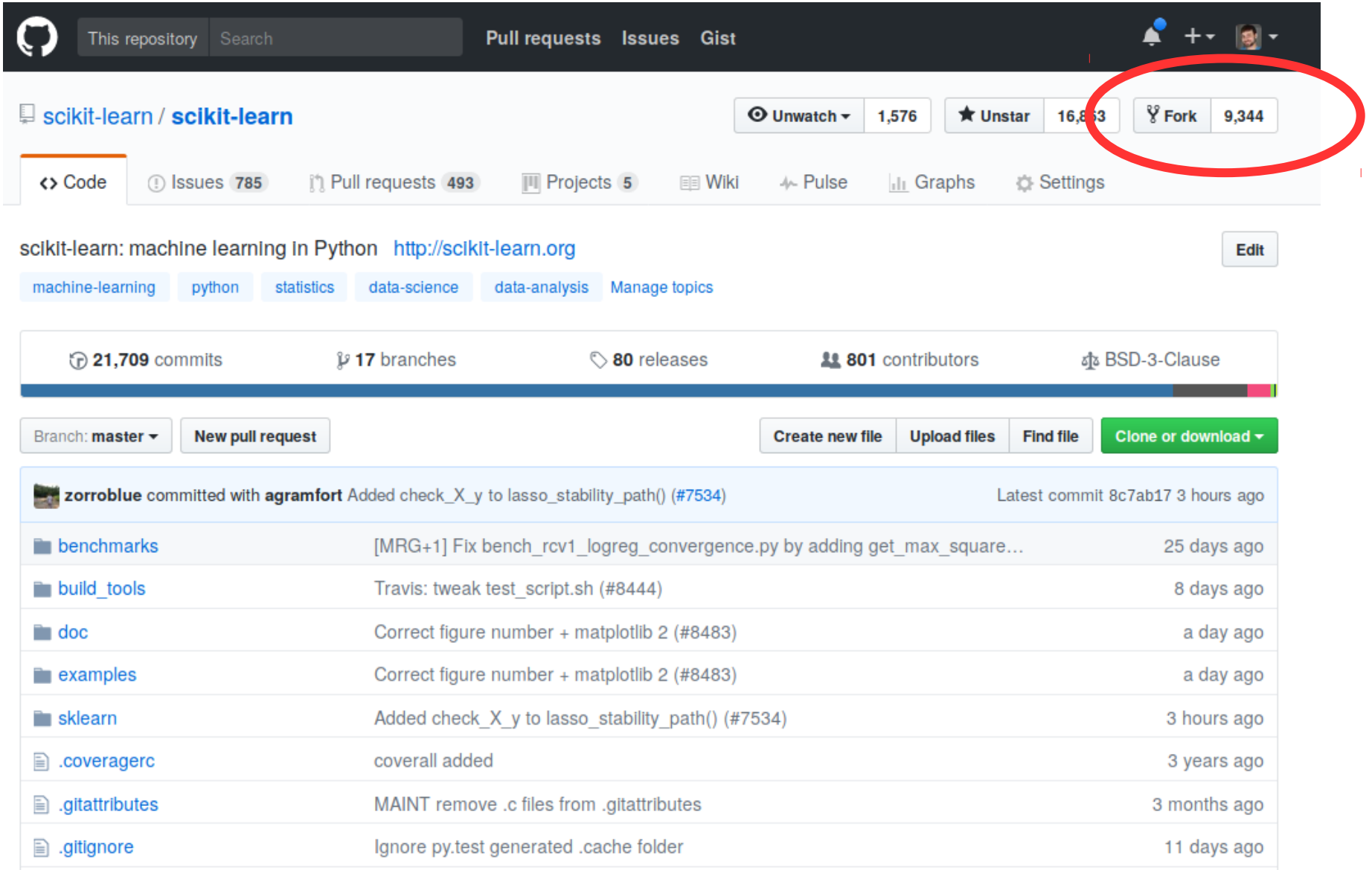
Environment

- If you don't have a working python installation, install anaconda.
- If you don't want to install the scikit-learn development version in your main environment, create a separate environment (with conda or virtualenv):

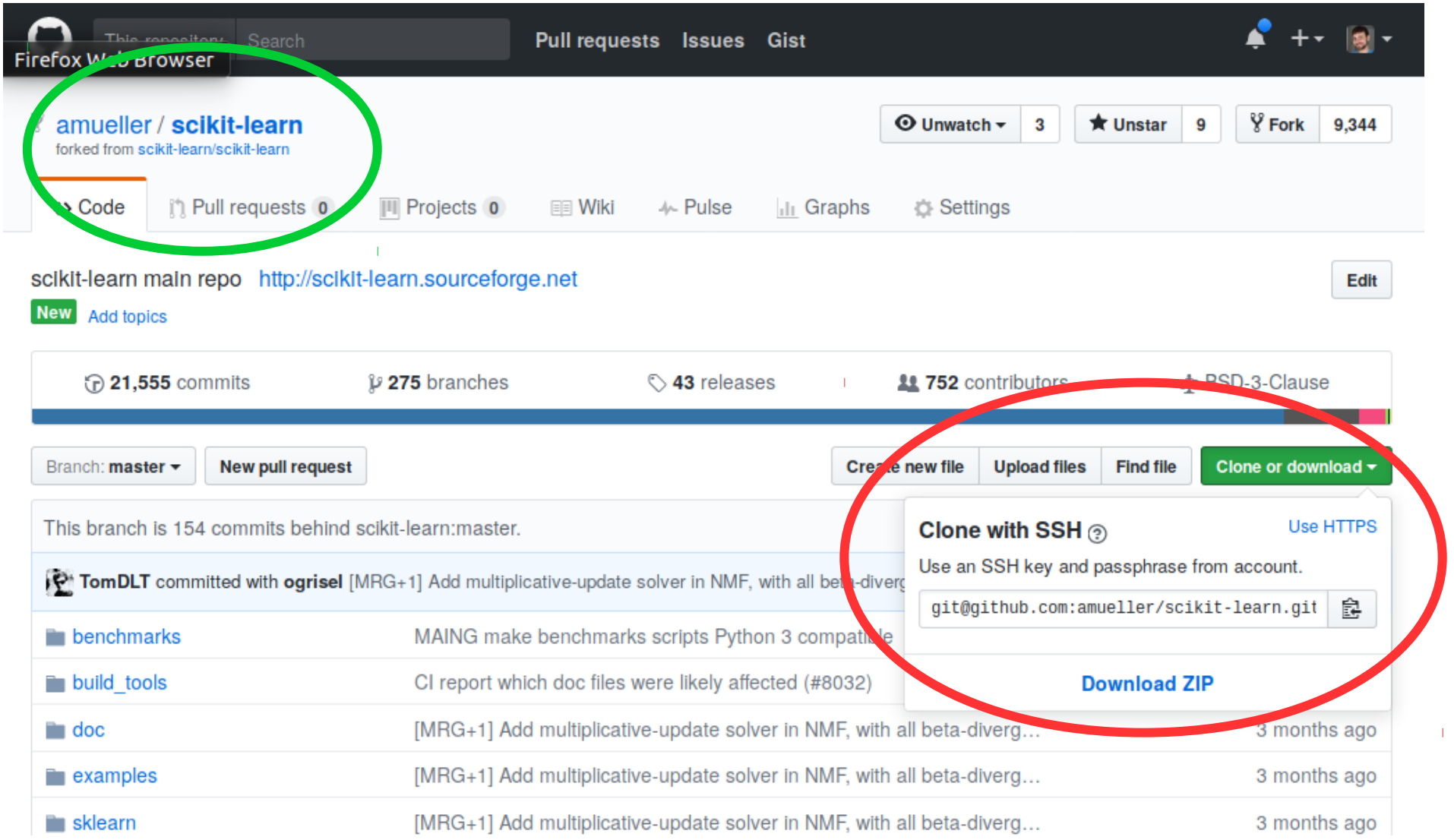
```
conda create -n sklearndev numpy scipy matplotlib
    nose sphinx cython ipykernel
source activate sklearndev
```

Fork sklearn on github

https://github.com/scikit-learn/scikit-learn



Clone the Fork



If you don't have ssh keys set up, use https!
Add main scikit-learn repo as remote called "upstream":

```
git remote add upstream git@github.com:scikit-learn/scikit-learn.git
```

Build and run tests!

- Easiest way:
  ```
  cd scikit-learn
  pip install -e .
  ```

- Will overwrite existing installations!

- Or:

  `make`

  (won't "install", you have to add folder to your PYTHONPATH

Starting on Issues

- Go to https://github.com/scikit-learn/scikit-learn/issues?q=is%3Aissue+is%3Aopen+label%3ASprint
- Comment on issue saying "I'm working in this".
- Update local master branch from main sklearn repo (`git pull upstream master`).
- Create feature branch

  git checkout -b <branchname>
- Commit changes to branch, run tests

  ```
  nosetests -sv sklearn/
  ```

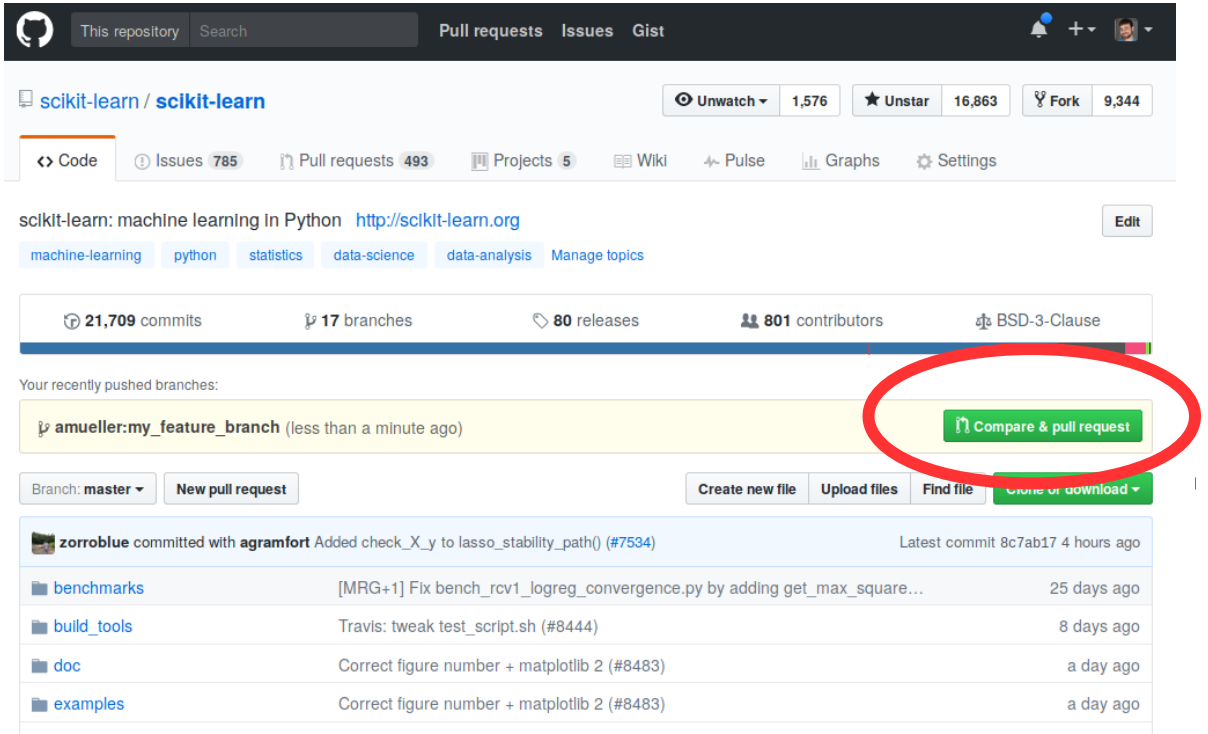
  (or individual test files)
- Run flake8 on changed files

Creating a PR

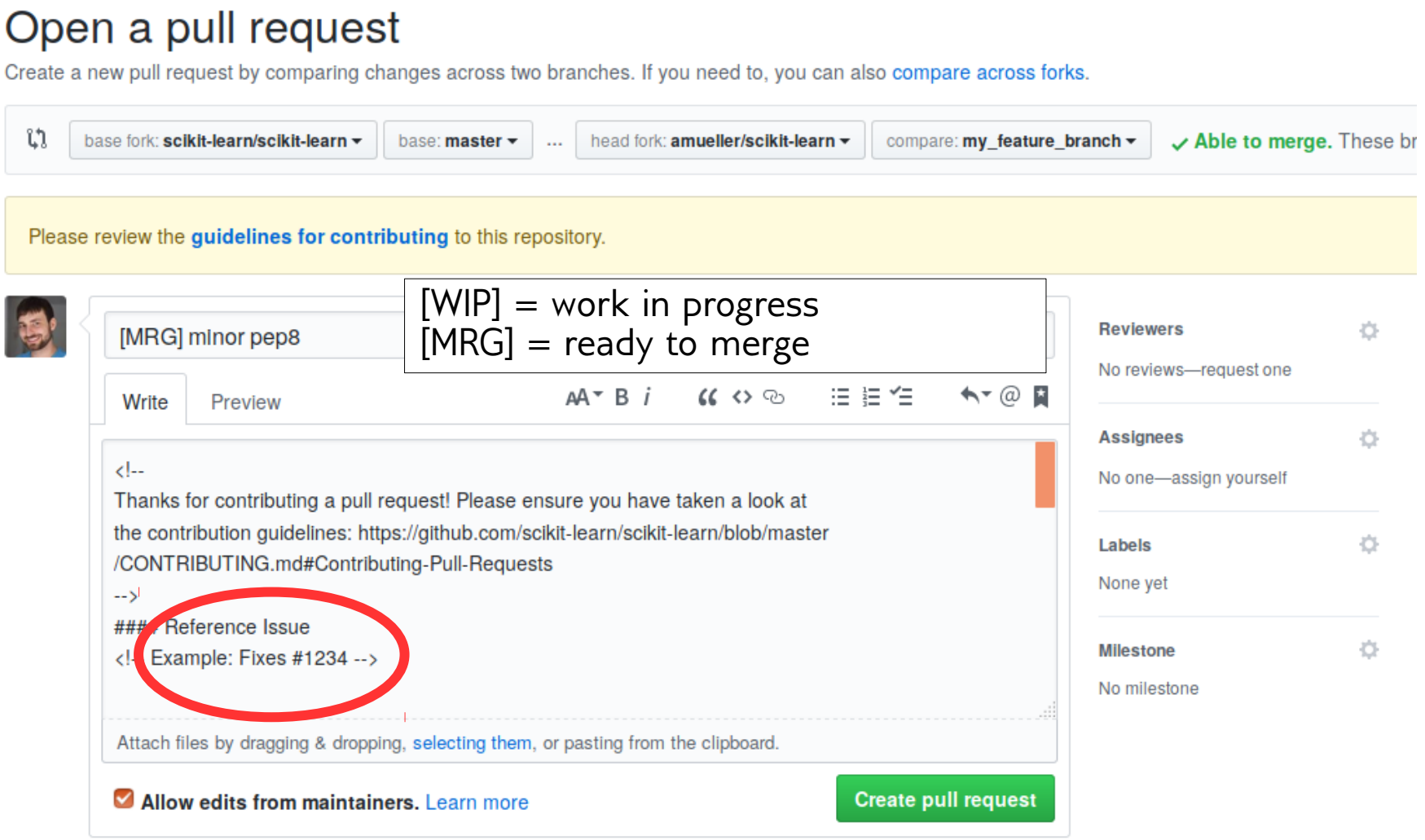
- Push changes to your fork

  `git push origin <branchname>`

- Create PR using github UI:

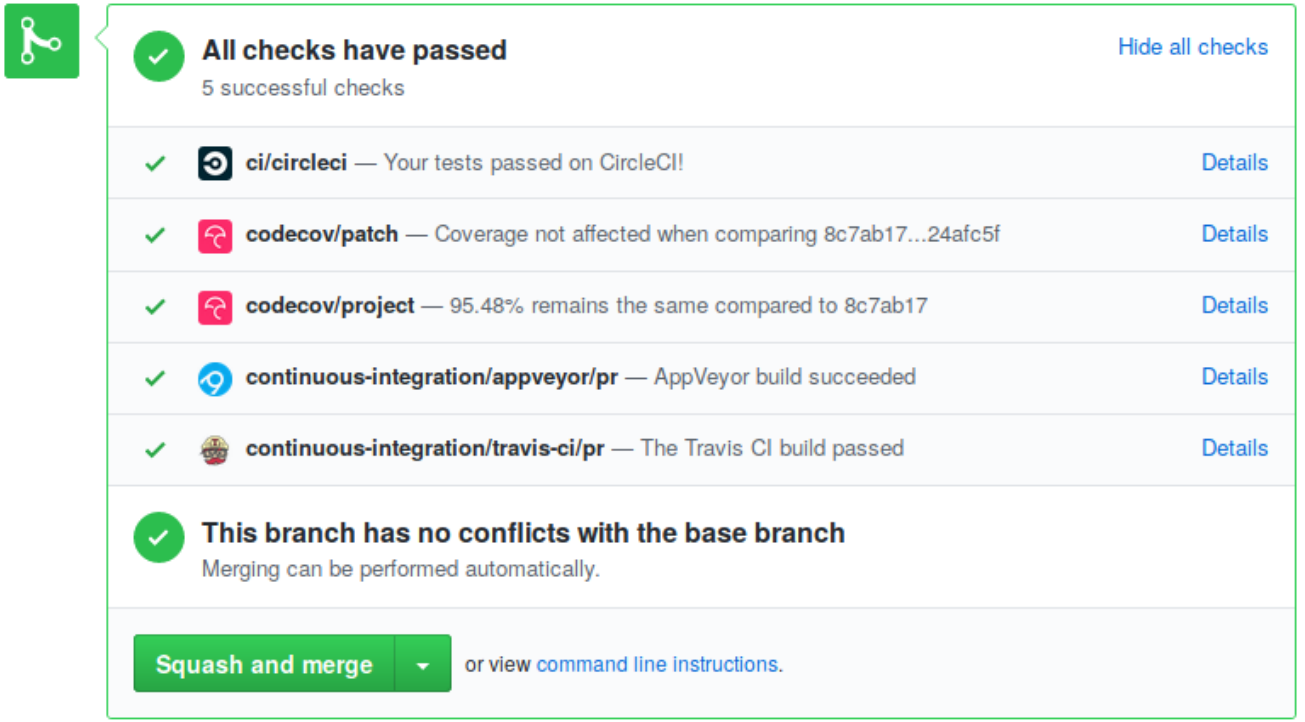


Describing PR



Regression tests

- Are mandatory! For everything (except documentation changes)!
- Make sure continuous integration passes:



What's next?

- Wait for reviews (be patient).
- Address review comments in the same branch.
- Pushing to your fork will update the PR
- Reviewers will "approve" PR or change title to [MRG + 1]
- You need two approvals for a merge.

Finding Issues

- Check “need contributor”, “easy” and “sprint” issues.
- Something unclear in the docs? Fix it!
- Can’t fix something that’s unclear? Open an issue!
- Problem that you keep running into: Open an issue!
- Find stalled PRs (the author didn’t address reviews for ~>1 month) and continue them!

Reviewing

- You can review PRs and issues!
- Some bugs are not confirmed. See if you can confirm them and under what conditions?
- You can review documentation PRs for language and whether they are clear to you.
- You can review code changes on whether they address the issue (might be a bit tricky).
- Don’t be afraid to ask clarifying questions!

Final words

- Pick something TRIVIALLY SIMPLE as the first contribution.
- You can do the cool stuff afterwards!
- There might be interesting issues that are not appropriately tagged.

Thank you for your help!
Enjoy!